First results for a non-homogeneous boundary problem associated to a chemotaxis system.

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Abstract: Chemotaxis models attempt to reproduce the biological process in which the spatial transport of the density of a living organism is modified by the presence of a chemical. There is an extensive literature for the case of homogeneous boundary problems, but this is not the case for non-homogeneous ones, especially when such boundary data are not very regular.
In this talk, we motivate such study and present first results about the existence and regularity of solutions for this situation.